2012

Annual Report of the Geospatial Information Systems Council

In Accordance with CGS Sec. §11-4(a)

Connecticut Geospatial Information Systems Council; Tyler J. Kleykamp, Chairman

1/1/2012

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Introduction:

About the GIS Council

The State of Connecticut Geospatial Information Systems Council (CGISC) was established by C.G.S§4d-90 to *"coordinate, within available appropriations, a uniform geospatial information system capacity for municipalities, regional planning agencies, the state, and others."*

This report summarizes the 2012 GIS Council activities and is submitted in accordance with C.G.S.§11-4(a).

Membership:

- Office of Policy & Management
- Department of Administrative Services
- Department of Energy & Environmental Protection
- Department of Transportation
- Department of Emergency Services & Public Protection
- Department of Public Health
- Department of Construction Services
- Department of Agriculture
- Department of Social Services
- Military Department
- Board of Regents for Higher Education
- University of Connecticut
- Appointed by the Governor: representing a municipality with a population of less than 60 thousand but more than 30 thousand people
- Appointed by the President Pro Tempore of the Senate: representing a municipality with a population of 60 thousand people.
- Appointed by the Senate Minority Leader: representing a regional planning agency
- Appointed by the Speaker of the House of Representatives: representing a municipality with a population of less than 30 thousand people
- Appointed by the Minority Leader of the House of Representatives: a user of geospatial information systems.

The Vision for the CT GIS Council:

The Connecticut Geospatial Information Systems (GIS) Council is mandated to develop a **UNIFORM GIS CAPACITY** for State Agencies, Municipalities, and Regional Planning Organizations.

A Uniform GIS Capacity is:

- a **PORTAL** or **FRAMEWORK** that provides a single point of access to all GIS related information, products and services for the State of Connecticut
- an **AUTHORITATIVE SOURCE** of geospatial data and services that assures users are getting the "best available" information
- a set of **BASE MAP** services to support daily activities in government
- a set of **PROTOCOLS** and **STANDARDS** that provide consistent and clear methods to share and consume geospatial data and services
- the server, data storage and software **INFRASTRUCTURE** that serves the data, services, and applications to the public
- a set of **TOOLS** that allow data sharing and discovery, data viewing, map production, and business process specific applications
- a catalog of **INFORMATION** on data, applications, projects, services and people
- a variety of on-line **SERVICES** with specific map views, process models, geocoding, querying, reporting and data extraction

WHY IS THIS NECESSARY?

- To promote **COLLABORATION, COMMUNCATION,** and **COORDINATION** amongst Municipal, Regional, State and Federal government activities.
- To improve the **RETURN ON INVESTMENT** for Connecticut GIS
- To make State and Local government **MORE EFFICIENT**
- To help government agencies **SHARE INFORMATION**

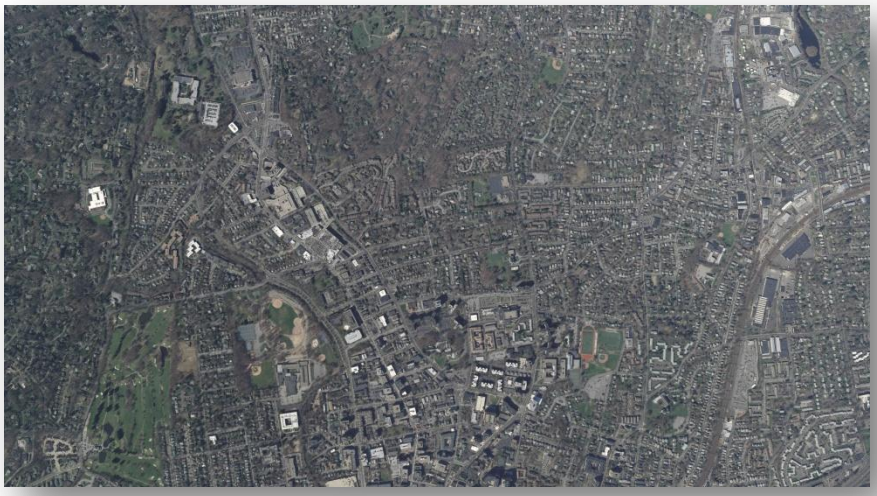
2012 Council Activities

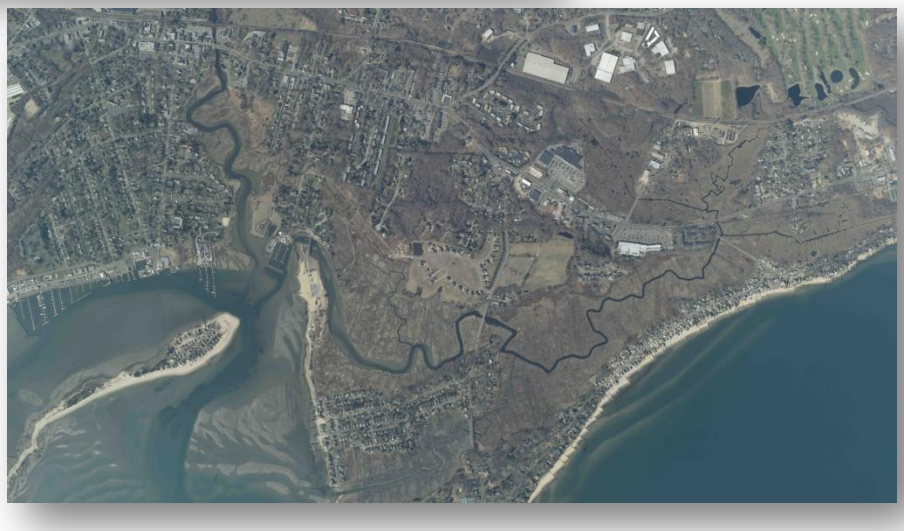
Statewide Orthophotography Acquisition:

The GIS Council coordinated the procurement of statewide digital aerial photography, leveraging planned federal investments in areas of the state, along with planned acquisitions in neighboring states. The last statewide acquisition in Connecticut was in 2004 and cost the state $1.4 million. ConnDOT and DESPP contributed $300,000 toward the project in the partnership with the U.S. Geological Survey and the National Geospatial Intelligence Agency.

The flights occurred between March 15th and April 4th of 2012. Four band imagery -red, green, blue and near infrared- will be available as 4-band 8-bit GeoTiffs. Final deliverables are expected around December of this year with distribution to follow in 2013. Imagery services will be available via CT ECO and the National Map.

Sample Imagery:





Response to Major Storms

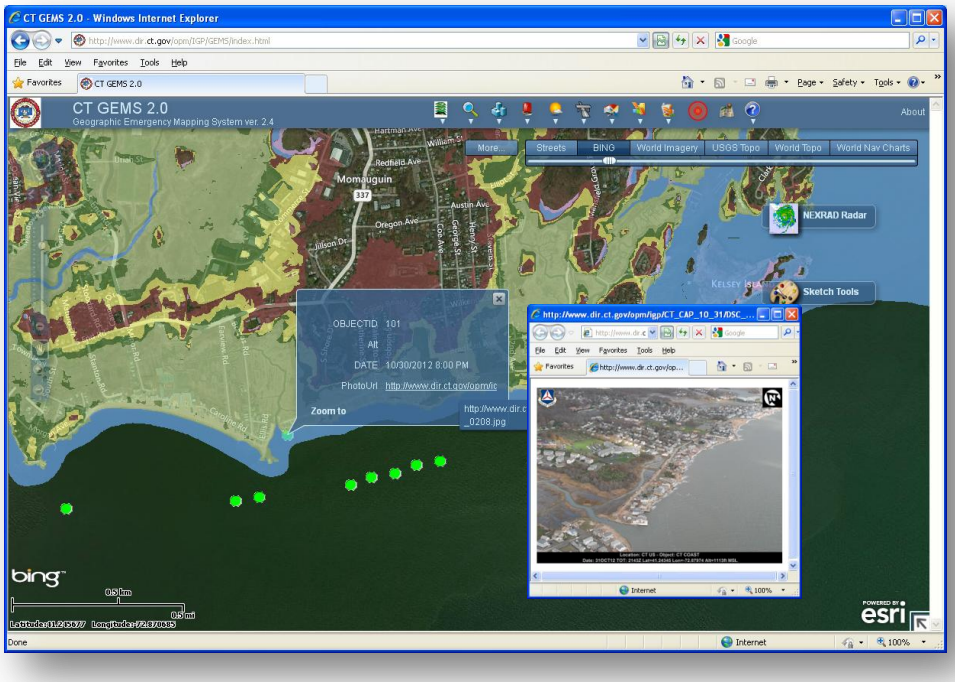
2011 Tropical Storm Irene & October Nor'easter

In response to the two major storms that occurred in 2011, members of the Connecticut GIS community voiced concerns and opportunities for greater use of GIS and data sharing in response to statewide storm events or other emergency management issues. The GIS Council established a "Storm Response and Recovery Assessment Group" to review the use (or lack of use) of GIS technology during those two Connecticut Storms. The report is available on the Council's website: http://www.ct.gov/gis/cwp/view.asp?Q=498104&A=3174

In addition, Council members and others provided testimony and recommendations to Governor Malloy's 2 Storm Panel. Many of those recommendations were reflected in the Governor's directives to improve the State's response to major weather events and other emergencies. Further work occurred through the Governor's Emergency Planning and Preparedness Initiative (EPPI) to further enhance the coordination and sharing of data amongst State Agencies, utility companies, and municipalities. The result of these efforts was the debut of a new web based Geospatial viewer, knows as the Geospatial Emergency Mapping System 2.0 (GEMS 2.0) that was utilized during the Statewide Hurricane Exercise. The new viewer incorporated new functionality available to the State Emergency Operations Center and municipalities, and incorporated enhanced critical infrastructure data as well as real-time data.

2012 Storm Sandy

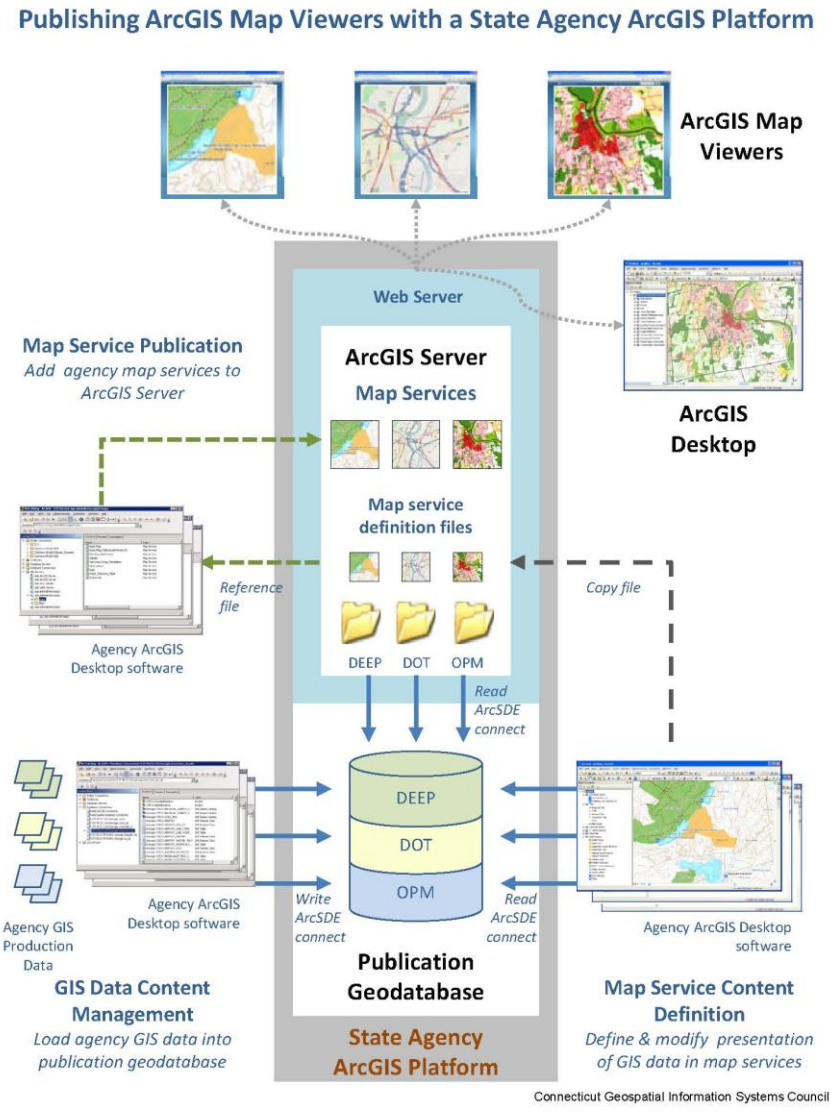
Council members and their respective State agencies provided staff support for the GeoLab located in the State Emergency Operations Center. The GeoLab created numerous map products to support response and recovery operations including potentially vulnerable critical infrastructure, identifying evacuation areas and the population affected, supporting commodities distributions, and coordinating the acquisition of post event imagery products. In addition, the GeoLab supported the GEMS 2.0 viewer performing tasks such as adding new data as it became available and ensuring its continued operation.



State Agency GIS Platform

OPM and DAS/BEST coordinated expanded access to the State's GIS platform to allow agencies to create interactive web based mapping applications. This will allow agencies to provide more on-line applications and services to improve operations and better interact with citizens and businesses. Initial agencies included in the expansion include DEEP, DESPP, DOT, and OPM.

In addition, several state agencies have expressed interest in migrating to a centralized GIS platform. Currently OPM and DAS/BEST are working to build out an expanded platform which would accommodate additional agencies and applications, while also reducing costs for those agencies.

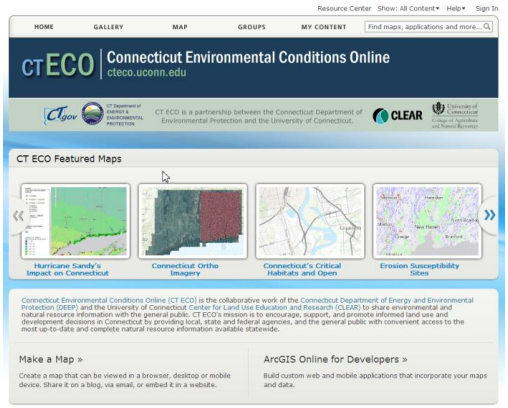


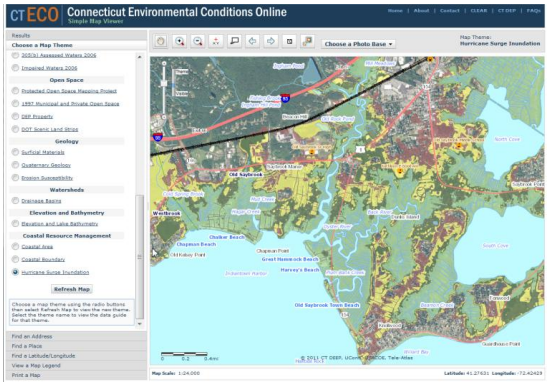
The CT ECO (Connecticut Environmental Conditions Online) by UConn CLEAR and DEEP

The CT ECO (Connecticut Environmental Conditions Online) website provides access to the state's natural resource geographic information, including eleven different aerial image datasets captured between 1990 and 2012. Access methods were designed to reach audiences of varying sophistication and range from basic pdfs to simplified map viewers to advanced map viewers and finally map services for GIS professionals. CT ECO has become a critical resource in Connecticut for public agencies, private sector firms, non-governmental organizations and private citizens. CT ECO is a collaboration between the Connecticut Department of Energy and Environmental Protection (DEEP) and the University of Connecticut Center for Land use Education and Research (UConn CLEAR).

Highlights and new additions to CTECO:

- An updated web interface providing quick access to all sections of CT ECO.
- New data added including 2012 NAIP Imagery and Orthoimagery as map services for fast and easy access. Methods for providing data download are being explored.
- Data Guides and Resource Guides added that clearly describe the data, what it shows, and how it should and shouldn't be used.
- Connecticut Coastal Hazards Viewer added to bring relevant and recent coastal data together in one place.
- CT ECO maps added to ArcGIS Online in its own Organization platform. ArcGIS Online is a website, developed by Esri, that allows users to interact with CT ECO maps in a map viewer, change the basemap, add other map services or local data, save the "map" to a user account, and share the map via email or social media.
- In 2012, over 23,000 unique visitors made over 40,000 visits to CT ECO, spending an average of 2.75 minutes per visit (this adds up to 77 24-hour days of time spent on ECO!).
- The number of unique visitors in 2012 was approximately twice the number during CT ECO's first year of operation in 2010.





Top: new interface designed for intuitive access to information.
Middle: new ArcGIS Online site featuring CT ECO maps
Bottom: new Coastal Hazards viewer

Visit http://cteco.uconn.edu

Cadastral (Parcel) Data Standards

In 2012 Council continued work on the development of recommended Cadastral (parcel) data standards. Cadastral data is the foundation for municipal GIS systems. This data is also useful by other government levels (regional, state and federal) as well as the private sector. Once this standard is adopted, it will be applicable to any state funded initiative which involves the development of parcel data.

Partnering with the CT GIS User to User Network

The Connecticut GIS User to User Network is a voluntary association of individuals and organizations that use GIS-based technologies and data. The Network's purpose is to connect users, learn about GIS activities, explore collaborations and discover information resources - all of which promote a dynamic and innovative community of GIS users. The Network is not affiliated with commercial software, data or service providers. Membership is free and is open to all.

The Council transferred the organization of GIS Day activities, and the development a distribution of the Connecticut GeoFocus newsletter.